

WHAT IS CLAIMED IS:

1. An encased stent comprising:

a substantially tubular body comprising a plasma-treated wire mesh; and

an encasing coating, comprising

a first layer of a conducting biocorrosion-inhibiting material on said wire mesh;

a second layer of polyurethane forming a substantially continuous film;

a third layer of polyethylene glycol; and

a coupling agent for coupling said second layer of polyurethane to said third layer of polyethylene glycol.

2. The encased stent of claim 1, wherein said encasing coating comprises at least one therapeutic agent selected from the group consisting of an anti-thrombin drug, an anti-inflammatory drug, an anti-coagulant drug, a cell cycle inhibitor and a vascular endothelial growth factor.

3. The encased stent of claim 1 where said conducting biocorrosion-inhibiting material comprises ligno-pani.

4. The encased stent of claim 1 where said coupling agent is toluene diisocyanate.

5. The encased stent of claim 1, wherein said encasing coating comprises an inner surface and an outer surface, further comprising a layer of endothelial cells on said inner surface.

6. The encased stent of claim 5, wherein said inner surface is plasma-treated.

7. The encased stent of claim 1 further comprising means for producing a substantially smooth encasing coating when the stent is expanded radially.

8. The encased stent of claim 7 wherein said means for producing a substantially smooth encasing coating comprises a plurality of thickened regions of said encasing coating between said wires and a plurality of thin regions of said encasing coating in proximity to said wires.

9. A method of making an encased stent having a substantially smooth encasing coating when the stent is expanded radially, comprising the steps of:

(a) providing a substantially tubular body comprising a mesh of plasma-treated wires;

(b) providing a wax cylinder adapted to fit within said tubular body, said wax cylinder having a plurality of raised areas disposed on an outer surface of said wax cylinder, said raised areas spaced so that said raised areas may be disposed in proximity to said wires;

(c) positioning said wax cylinder within said tubular body so that said raised areas are disposed in proximity to said wires;

(d) applying a layer of polyurethane over said tubular body to form a substantially continuous film having a plurality of thickened regions between said wires and a plurality of thin regions in proximity to said wires.

10. The method of claim 9, further comprising the step, before the step of claim 8 of applying a first layer of a conducting biocorrosion-inhibiting material on said wire mesh.

11. The method of claim 10, further comprising the step, after the step of claim 9, of applying a layer of polyethylene glycol having a coupling agent for coupling said layer of polyurethane to said layer of polyethylene glycol.

12. The method of claim 11, wherein said encasing coating comprises at least one therapeutic agent selected from the group consisting of an anti-thrombin drug, an anti-inflammatory drug, an anti-coagulant drug, a cell cycle inhibitor and a vascular endothelial growth factor.

13. The method of claim 12 where said conducting biocorrosion-inhibiting material comprises ligno-pani.

14. The method of claim 12 where said coupling agent is toluene diisocyanate.

15. The method of claim 12, wherein said encasing coating comprises an inner surface and an outer surface, further comprising a layer of endothelial cells on said inner surface.

16. The method of claim 9 wherein said encased comprises an inner surface, further comprising the step of plasma treating said inner surface.